

## Chapter 14

### PS&E SPECIAL PROVISIONS

#### GENERAL

The purpose of the special provisions is to provide the contractor with information regarding utility conflicts that will be helpful during his bidding on, planning of, and scheduling for the proposed improvement project. The special provisions will alert them to any utility coordination that will be required during construction, and any delays that may be caused by a utility during the prosecution of the project.

Faulty or incorrect information in the special provisions has been the cause of claims for additional compensation to the contractor when a utility's operations affected the highway contractor's prosecution and progress on a project by causing unexpected delays or increased costs.

Write the special provisions based on information provided by the utility company. It is not acceptable to create special provisions without contacting the utility company. A highway designer may not make commitments on behalf of the utility company.

Use the word **WILL** when discussing the anticipated actions of a utility. We do not have direct control over a utility's actions, and have no contract with them; thus, using the word WILL is justified.

Use direct commands, otherwise known as the active voice-imperative mood, when specifying what the highway contractor shall do (refer to section 101 of the "Wisconsin Standard Specifications for Highway and Structure Construction"). We have control over the highway contractor, and we can require him/her to perform certain actions.

Sometimes, it is necessary to re-contact the utility just prior to PS&E submittal to verify their relocation plans. This is especially true on complicated projects, or on projects where the last written correspondence was several years ago.

#### WHAT IS NEEDED

The Utilities article in the special provisions provides information regarding the utility facilities in the project area and the anticipated status of utility work at the time of construction operations under the contract. Address each utility facility requiring alteration or relocation separately and include the following information for each entry: (Facilities Development Manual (FDM) Procedure 19-15-25)

- Name of Utility Company (in bold)
- Type of facility, e.g., 2-inch gas main, overhead power line, or buried telephone cable.
- Location of facility; for example, from Station 10+00 to Station 30+00 left, from STA 10+00 to STA 30+00 LT, on the east side of STH 19 throughout the project, or crossing STH 19 at Station 15+25.
- Location of conflicts.
- Corrective action that the utility will take, e.g., lower gas main, or relocate line 10 feet right.
- Anticipated timing of utility operations; for example, prior to the start of construction, by June 15, 2006, or during construction.

Include in the article all utility work scheduled for completion either before or during construction as well as utility work that is dependent upon the contractor's operations.

If there are utility facilities in the project area, but no adjustments are required, provide a brief statement with a listing of the utility companies.

**The following utilities have facilities within the project's limits; however, no adjustments are required:**

- SBC
- Xcel Energies
- Municipality Sanitary Sewer District

If there are no known utility facilities in the project area, provide a brief statement stating this.

**No utilities are located within the project area.**

Be specific. Instead of "All utilities will be relocated in coordination with construction operations," use "Footville Telephone Company will relocate approximately 2000 feet of underground cable between Station 20+00 and Station 40+00 in coordination with construction operations under this contract."

However, don't be too specific. Do not use specific dates and time frames, unless necessary. (This may be necessary on complex projects or Trans. 220 projects that will have some utility work performed during construction.) We need to give information, but not be misleading in case the utility has problems with performance. For example, say "It is anticipated this work will take approximately 14 working days," instead of "This work will take 14 days."

Generally the contact person for the utility company will be listed on the Utilities page of the plan. This is quite often the second or third page of the plan set. The contact person information should not be repeated in the special provisions unless the person listed has very specific duties regarding the construction operations, such as adjusting manholes or valve boxes and is not the field contact for other issues during construction. An example of this is "Contact Jim Doe at 608-838-3228 after the pavement has been removed. Jim will adjust the service connections." You could supplement this sentence with "Contact George Smith at 608-838-1111 for all other issues during construction." George would be the contact person listed on the Utilities page. This is duplication of information, but it also clarifies that Jim Doe's responsibilities are limited to adjusting the service connections.

## **TRANS 220 PROJECTS**

The Utility article for all projects must state whether or not Trans. 220 applies to the project. The project designer should ask the Utility Coordinator for this information.

If it is a Trans. 220 project, include the following paragraphs in the special provisions:

This contract comes under the provisions of Administrative Rule Trans. 220.

**Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 14 to 16 calendar days in advance of when the prior work will be completed and the site will be available to the utility. Follow-up with a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.\*\***

**\*\*Use this paragraph only when utility work is being done during the highway construction project. If all relocations are to be completed prior to the beginning of the highway construction, omit this paragraph. These notification requirements are dictated by Trans. 220 and may not be modified.**

On Trans. 220 projects, ensure that the article is clear on what, if any, coordination is required during highway construction operations. Give the bidder as much information as possible regarding the timeframes of utility work that will take place during the highway construction project. For example, "The gas main between Station 10+30 and Station 18+60 will be lowered no later than 10 working days after the grading has been completed in that area." Or, for example, "The water main and services will be lowered within one week after the concrete pavement has been removed."

If it is NOT a Trans. 220 project, include the following sentence in the Utility article.

**This contract does not come under the provisions of Administrative Rule Trans. 220.**

### PERMIT INFORMATION

Some Project Development Section staff have requested that the following statement be placed in the special provisions for state trunk highway projects that require utility relocation.

**Additional detailed information regarding the location of relocated utility facilities is available on the permits issued to the utility companies. These permits can be viewed at the regional office during normal working hours. Contact the region's Utility Permit Coordinator at xxx.xxx.xxxx.**

Check with your region's Utility Coordinator to determine if this wording is appropriate for your project. See Chapter 1 of this guide for a listing of each region's Utility Coordinators.

### GENERAL GUIDELINES FOR WRITING SPECIAL PROVISIONS

1. **Do not specify that the contractor perform work without being adequately compensated for performing such work.** Also, when referring to bid items within the articles, ensure that those bid items are part of the proposal. For example, if you specify that a contractor perform a utility line opening or adjust water valves as part of the contract work, ensure that the appropriate bid items are added to the estimate and plans.
2. **Use active voice-imperative mood.** When using active voice, do not use the words "the contractor shall," instead, use a direct command (often, the sentence will begin with a verb). For example, if one wanted to specify "The contractor shall notify the utility company 14 calendar days prior to excavating at Station 100+00," state "Notify the utility company 14 calendar days prior to excavation at Station 100+00." Instead of "The contractor shall submit certification to the engineer that the products used in the project meet the listed requirements..." state "Submit certification to the engineer that ...." Or instead of "The contractor shall be responsible for repairing all damage made to the facility at Station 100+00 due to construction operations," state "Repair all damage made to the facility at Station 100+00 due to construction operations."
3. **Avoid repetition.** Even if you believe emphasis is needed, avoid repetition in contract documents. Do not repeat verbiage in the special provisions that is already stated elsewhere in the special provisions. Do not repeat language already included in the "Wisconsin Standard Specifications for Highway and Structure Construction" or in the "State of Wisconsin Supplemental Specifications." If the wording or punctuation is different between the references and the intent is inadvertently

changed, the contractor may be confused and interpret the contract differently from the designer's intent. If a claim is brought against the department in court, a judge may rule against the department for being sloppy in its preparation of contract documents.

4. **Capitalize bid item names.** Little else is capitalized in the special provisions. For example, do not capitalize standard specifications, section, subsection, engineer, contractor, special provisions, city, plans, contract, work, owner, or department. An exception to this is: If referring to a particular station such as Station 10+00, capitalize the first letter of the word station.
5. **Avoid using "should,"** instead, tell the contractor what has to be done. The word "should" is only a kindly suggestion—it can't be enforced!
6. **Abbreviations.** Some abbreviations are provided in subsection 101.2 of the standard specifications. <http://roadwaystandards.dot.wi.gov/standards/stdspec/sect101.pdf> When using other abbreviations, use standard protocol in introducing the abbreviation. When using acronyms, do not place a period between every letter. For example, write "ASTM," not "A.S.T.M." Do not abbreviate northbound, southbound, eastbound, and westbound.
7. **Avoid ambiguous phrases,** i.e., phrases that can be interpreted to have more than one meaning. Here are some examples:

Fasten the flange by nuts and bolts of stainless steel.

Which is stainless, both the nuts and the bolts, or just the bolts?

All utility adjustments shall be approved by the engineer.

A contractor could interpret this sentence to mean that the engineer will automatically approve all utility adjustments. The designer's intent may be better stated: "Ensure that all utility adjustments have been approved by the engineer before making the adjustments." OR "Obtain approval from the engineer before making any utility adjustments."

8. **Avoid phrases such as "may or may not be in conflict," or "to the satisfaction of the engineer" or "meeting the approval of the engineer."** Not only are these phrases ambiguous, they make the proposal un-biddable, because the bidder does not know whether work will be required or to what standard his/her work will be held.
9. **Do not use the word "etc.,"** which is short for "et cetera" and means "and others" or "and the rest." Use of this word in specifications is inappropriate because contractors are not required to deliver items that are not specifically mentioned.  
For example, instead of:  
"Furnish and install all other items necessary such as, wire nuts, splice kits and connectors, tape, insulating varnish, ground lug fasteners, sodium lamps, etc. for lighting to make the proposed system complete from the source of supply to the most remote unit,"

Write

"Furnish and install all other items necessary such as, wire nuts, splice kits and connectors, tape, insulating varnish, ground lug fasteners, sodium lamps for lighting, and other appurtenances to make the proposed system complete from the source of supply to the most remote unit,"

Or write

“Furnish and install all other items necessary such as, wire nuts, splice kits and connectors, tape, insulating varnish, ground lug fasteners, and sodium lamps for lighting to make the proposed system complete from the source of supply to the most remote unit.”

10. **Be consistent throughout the article when referring to locations.** Use “Station” or “STA” when referring to a **specific** station. Use “LT,” “left,” “RT,” or “right” to refer to location. Spell out right-of-way; do not use R/W or r/w. For example: “SBC will lower the telephone pedestal at Station 15+50 RT.” Or, “Nine telephone poles between STA 377+70 to STA 386+30 will be removed and replaced with a buried cable near the right-of-way line.”
11. **“The work consists of” vs. “The work includes.”** “The work includes” is not a restrictive phrase and suggests that the scope of the work may be greater than the listing of work that immediately follows. In most cases, it is better to use the word “includes” instead of the phrase “consists of.”
12. **In general, be careful when using lists.** When using a list, ensure that it is complete. If there is a contract dispute, a court may assume that the contractor’s obligation was to perform only the work that was specifically enumerated on the list, and that the designer intended to omit items not included in the list.
13. **Cross-References.** Standard detail drawing numbers are frequently updated and provided with new numbers. Bid numbers are sometimes changed, and the articles within the special provisions are often rearranged during the PS&E review process. When referring to another article within the special provisions, refer to its name not its number. If referring to another bid item, refer to the name of the bid item, not its number. If referring to a standard detail drawing, refer to the name of the standard detail drawing, not its number.
14. **Engineer/Project Manager/WisDOT’s representative:** When referring to one of these people in the specials provisions, use the term “engineer.” Do NOT capitalize engineer. Subsection 101.3 defines the term “engineer” as “The secretary of the department of transportation or the secretary’s authorized representative limited by the particular duties assigned to the representative.”
15. **Lineal vs. Linear Feet and its vs. it’s.** When measuring length, use the word “linear,” instead of “lineal.” Lineal means belonging to or being in direct line of descent from an ancestor. The word “it’s” is a contraction for the words “it is” or “it has,” while “its” is the possessive form of the pronoun it.
16. **Avoid explanations; avoid using the word “because.”** Specifications specify; they do not explain. Consider this sentence: “Add glass beads to the pavement marking to increase reflectivity.” Different users of the contract documents can interpret the informative phrase “to increase reflectivity” differently. Does it mean “add to all pavement markings,” or does it mean “determine which paint markings have lower reflectivity (compared to others or the norm) and add the beads to the paint for those particular markings?”
17. **Omitting phrases.** Do not omit words or phrases if there is any possibility of the intent becoming ambiguous. For example, do the omitted words “shall supply” in the following sentence belong after “and” or after “batteries?”

The generator shall supply the processor with 10.5 amperes and the batteries 8.5 amperes.

18. **Keep your sentences short and simple.** Also, it is okay to repeat the same word or phrases. If

you intend no difference in the meaning of two words, use only one of them.

19. **Do not use the “/” mark unless it represents the word “per.”** The virgule stroke is used between two words to show that the appropriate one may be chosen to complete the sense of the text. If A/B is written, it can be interpreted “either A or B” or “either A or B or both” or “both A or B” or “the number of A’s divided by the number of B’s.” In special provisions, the contractor gets to choose the meaning, and the contractor may choose only one option, not both. In most cases, it is best to write “A or B, or both” to ensure that the engineer will have the authority to obtain what is needed from the contractor.
20. **That vs. which.** In general, the word “that” introduces a restrictive or defining relative clause, which identifies the entity being talked about. The word “which” is used to introduce a clause that typically contains incidental or nonessential information; a comma usually precedes it.
21. **Use of numbers in sentences.** In general, spell out single digit numbers (zero through nine), and use figures for two or more digit numbers. There are many exceptions:
  - Always spell out a number that is at the beginning of a sentence.
  - Always use figures when a unit of measurement follows.
  - Use figures for all numbers when there are numbers of two or more digits for related quantities in the same sentence, such as “5 of 34 telephone poles will be relocated.”
  - Always spell out approximate values, such as “about four years,” or “approximately two times larger.”
  - Do not spell out AND use figures for numbers in parentheses; it is unnecessary. For example, write “3 working days,” not “three (3) working days.”
22. **Use of units.** All numerical values that have dimensions must have their units specified. General guidelines are:
  - If there are two numbers in the same phrase with the same units, put the units only after the second number, e.g., between 4 and 5 inches.
  - All units that are named after a person have a lower-case first letter when written out, but an upper-case first letter when abbreviated. Hence, the proper abbreviation for “kilovolt” is “kV.” The proper abbreviation for “megahertz” is “MHz,” “M” denotes “mega.” Note that “m” can denote “meter” or the prefix “milli.”
  - The proper abbreviation for “second” is “s,” not “sec.”
  - There should be one blank space between a number and a unit.
  - Temperature has the unit of degree. There should be one blank space between the degree symbol and the degree type, e.g. “68° F” or “20° C” (or write out the word “degrees”).
23. **When specifying dates,** such as in noting when a utility will be completed with their work, include the year.
24. **Use bold instead of underline** to emphasize the name of a utility company.



25. **Full-justify** all paragraphs. Do not indent the first word of each paragraph. For text within the article, use Times New Roman font, 12-point. For the heading of the Utility article, use Times New Roman font, 14-point.
26. **Do not use auto-formatting when preparing the article**, e.g., automatic generation of paragraph numbering or headings of paragraphs. Use of auto-formatting interferes with the automatic generation of the Table of Contents within the special provisions.

### **CURB AND GUTTER CLEARANCE RESTRICTIONS**

Contractors have been complaining when there is less than 3 feet of clearance between the back of curb and any above ground OR buried utility facility. Some curb and gutter paving machines require about a 3-foot clearance. There have been times when buried facilities have been in conflict with paving machines because the contractor has had to excavate to a depth below ground that uncovers the cable or pipe, or reduces the cover over the cable or pipe to an insufficient depth for safety reasons. Therefore, anytime there is less than 3 feet of clearance between the back of curb and the utility facility, add a note stating this in the special provisions.

### **EXAMPLE SPECIAL PROVISIONS**

**Example A:** Use this example if it is a Trans. 220 project AND utility relocations will be done DURING highway construction.

#### **Utilities.**

This project comes under the provisions of Administrative Rule Trans. 220.

Some of the work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide a good faith notice to both the engineer and the affected utility of when the utility is to start work at the site. Provide this notice 14 to 16 calendar days in advance of when you anticipate the prior work being completed and the site will be available to the utility. Follow-up with and provide a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

Additional detailed information regarding the location of the relocated utility facilities is available on the permits issued to the utility companies. View these permits at the southwest regional office during normal working hours. Contact the regional utility coordinator at (xxx) xxx-xxxx.

**Wisconsin Gas Company** has a 6-inch gas main along USH 14 from Station 5+00 to Station 30+75 left, and a 2-inch main that crosses Freistadt Road at Station 14+05. The 6-inch main will be lowered from approximately Station 13+00 to Station 17+00 after the grading work has been done in this area. This work is expected to take 5 working days.

**Ameritech, Inc.** has underground cable through the project on the east side of USH 14. They will be relocating and lowering a telephone pedestal in the slope easement at Station 15+68 right. They expect to complete this work by May 1, 2007.

**Sanitary District No. 4** has a 36-inch sanitary sewer along USH 14 from Station 10+00 to Station

35+00. Adjust 5 manholes to match the new pavement. Perform this work in accordance to the requirements of bid item Adjusting Manhole Covers. Coordinate this work with the sanitary district.

**Wisconsin Power and Light** has overhead power poles along USH 14 from Station 8+00 to Station 25+00 right, and from Station 25+00 to Station 37+00 left. No conflicts are anticipated.

**Example B:** Use this example if it is a Trans. 220 project AND utility relocations will be done PRIOR TO construction.

### **Utilities.**

This project comes under the provisions of Administrative Rule Trans. 220.

Additional detailed information regarding the location of the relocated utility facilities is available on the permits issued to the utility companies. View these permits at the southwest regional office during normal working hours. Contact the regional utility coordinator at 608.246.3874.

**Adams Columbia Electric Co-op (ACE)** has power poles and overhead line throughout the project. ACE will replace the overhead lines with new buried electric cable outside of the project limits prior to May 15, 2006.

**ANR Pipeline Co.** has a 12-inch gas main crossing at Station 149+68. ANR will extend the casing on both sides of the road, install a vent on the south side of the road, and extend the vent on the north side of the road prior to February 2006.

**Example C:** Use this example for a non-Trans. 220 project.

### **Utilities.**

This project does not come under the provisions of Administrative Rule Trans. 220.

Additional detailed information regarding the location of the relocated utility facilities is available on the permits issued to the utility companies. View these permits at the southwest regional office during normal working hours. Contact the regional utility coordinator at 608.246.3874.

**GTE North, Inc.** has buried cable on the south side of STH 23 from...

**Example D:** Use this example when no utility relocations are required.

### **Utilities.**

This project (comes/does not come) under the provisions of Administrative Rule Trans. 220.



The following utility companies have facilities within the project area; however, no adjustments are anticipated:

Madison Gas & Electric Company  
GTE North, Inc.  
TCI Cablevision

**Example E:** Use this example when utility relocations are done several years prior to construction and prior to the PS&E submittal.

**Utilities.**

This project (comes/does not come) under the provisions of Administrative Rule Trans. 220.

The following utility companies relocated their facilities in 2004:

Madison Gas & Electric Company  
Ameritech Inc.  
TCI Cablevision

**Example F:** When there are no utility facilities within the project limits, use this example.

**Utilities.**

There are no known utility facilities within the project limits.

**Example G:** When there is less than 3 feet of clearance behind the curb and gutter, use this example.

From Station 110+45 to Station 115+00, there is less than 3 feet of clearance between the back of curb and the utility poles. The poles will not be moved. Work around these poles.

**Example H:** For landscaping, signal or other such similar projects, use this example.

**Utilities.**

This project comes under the provisions of Administrative Rule Trans. 220.

The following utilities have facilities within the project area; however, no adjustments are anticipated:

Madison Gas & Electric Company  
Ameritech Inc.  
TCI Cablevision

Have all buried utilities field-located prior to starting construction. The engineer may alter the

locations of material being installed under this contract to avoid conflicts with existing utility facilities.

**Example I:** Use this example when utility coordination for a project is being done under another project, e.g., a signal installation contract where the bases and conduit were placed under a different project.

**Utilities.**

This project (comes/does not come) under the provisions of Administrative Rule Trans. 220.

All utilities at these intersections are being coordinated under project ID 5255-03-71. There are no other conflicts with utilities for this project.

**Example J:** For culvert replacement projects and projects where it is not possible to coordinate utility relocations prior to construction, use this example.

**Utilities.**

This project (comes/does not come) under the provisions of Administrative Rule Trans. 220.

Have all utilities field-located prior to starting construction. Due to the nature of this work, utility conflicts were not resolved prior to construction activities. Coordinate all utility relocations or adjustments that may be necessary to accomplish the work of this project.

The utility companies involved are:

Sites 1, 2, and 3: Alliant Energy, Verizon, and Charter Communications

Sites 4 and 5: Alliant Energy, Ameritech, and Wisconsin Gas

Sites 6, 7, and 8: Wisconsin Electric, Midwest Telephone

Note: If you know that all of the utilities are members of Diggers Hotline, instead of using the sentence "The utility companies involved are:," use "All of the utility companies with facilities in the project work areas are members of Diggers Hotline."

**Example K:** It may be difficult to explain utility conflicts and their proposed resolution in a text format. It is permissible to list the facility location and conflict information in a list format using numbered or bullet statements, or to use a table.

**Utilities.**

This project (comes/does not come) under the provisions of Administrative Rule Trans. 220.

**Ameritech, Inc.** has the following facilities in the project area:

1. The existing buried cable from STA 324+00 to STA 337+35 LT is not in conflict.

2. The USH 51 crossing at STA 337+35 is in conflict and must be relocated after the cut is completed in this area. Coordinate construction operations with Ameritech.
3. A new buried cable will be installed outside of the construction limits from STA 337+35 to STA 343+00 LT. The existing cable will be removed.
4. The buried crossing at STA 339+70 is not in conflict.
5. The telephone pedestal at STA 349+80 RT will be raised prior to construction.
6. New buried cable crossing Terrington Road at STA 21''T''+75. The existing crossing at STA 22''T''+50 will be abandoned.
7. New buried cable along the vision corners at the Terrington Road intersection. The existing cable, 30 feet from the centerline, will be abandoned.
8. Existing cable on the east side of USH 51 from STA 377+50 to STA 393+00 will be abandoned.
9. Nine telephone poles between STA 393+50 and STA 403+75 will be removed and replaced with a buried cable near the right-of-way line.
10. A new buried crossing at STA 409+75 will be installed.

OR, use bullet statements:

**Ameritech, Inc.** has the following facilities in the project area:

- The existing buried cable from STA 324+00 to STA 337+35 LT is not in conflict.
- The USH 51 crossing at STA 337+35 is in conflict and must be relocated after the cut is completed in this area. Coordinate construction operations with Ameritech.
- A new buried cable will be installed outside of the construction limits from STA 337+35 to STA 343+00 LT. The existing cable will be removed.
- The buried crossing at STA 339+70 is not in conflict.
- The telephone pedestal at STA 349+80 RT will be raised prior to construction.
- New buried cable crossing Terrington Road at STA 21''T''+75. The existing crossing at STA 22''T''+50 will be abandoned.
- New buried cable along the vision corners at the Terrington Road intersection. The existing cable, 30 feet from the centerline, will be abandoned.
- Existing cable on the east side of USH 51 from STA 377+50 to STA 393+00 will be abandoned.

- Nine telephone poles between STA 393+50 and STA 403+75 will be removed and replaced with a buried cable near the right-of-way line.
- A new buried crossing at STA 409+75 will be installed.

OR, use a table:

<b>Location</b>	<b>Facility</b>
1. STA 324+00 to STA 337+35 LT	The existing buried cable is not in conflict.
2. USH 51 crossing at STA 337+35	Must be relocated after the cut is completed in this area. Coordinate construction operations with Ameritech.
3. STA 337+35 to STA 343+00 LT	A new buried cable will be installed outside of the construction limits. The existing cable will be removed.
4. STA 339+70	The buried crossing is not in conflict.
5. STA 349+80 RT	The telephone pedestal will be raised prior to construction.
6. STA 21''T''+75	New buried cable crossing Terrington Road. The existing crossing at STA 22''T''+50 will be abandoned.
7. Vision corners at the Terrington Road intersection	New buried cable along the vision corners. The existing cable, 30 feet from the centerline, will be abandoned.
8. STA 377+50 to STA 393+00	Existing cable on the east side of USH 51 will be abandoned.
9. STA 393+50 to STA 403+75	Nine telephone poles will be removed and replaced with a buried cable near the right-of-way line.
10. STA 409+75	A new buried crossing will be installed.

**Example L:** When there are two or more project ID's, use the following example.

### **Utilities.**

This project comes under the provisions of Administrative Rule Trans. 220.

Some of the work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide a good faith notice to both the engineer and the affected utility of when the utility is to start work at the site. Provide this notice 14 to 16 calendar days in advance of when you anticipate the prior work being completed and the site will be available to the utility. Follow-up with and provide a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

Additional detailed information regarding the location of the relocated utility facilities is available on the permits issued to the utility companies. View these permits at the southwest regional office

during normal working hours. Contact the regional utility coordinator at 608.246.3874.

### **Project 1445-00-71**

**Black Earth Telephone Company** has buried cable from Station 240+50 to Station 310+25...

**Cross Plains Electric** has overhead facilities on the right from the beginning of the project at Station 203+00 to the end of the project at Station 351+00. There are...

### **Project 1445-01-73**

**Cross Plains Electric** has overhead facilities on the right from the beginning of the project at Station 351+00 to Station 420+50. Relocation of the pole line from Station 375+00 to ...

**Star Cablevision** has cable attached to Cross Plains Electric poles. This cable will be removed from the power poles within 5 working days after Cross Plains Electric, or the contractor, has notified Star Cablevision.

**Example M:** There may be times when unusual circumstances require detailed coordination with the contractor. This is one example.

### **Utilities.**

This project (comes/does not come) under the provisions of Administrative Rule Trans. 220.

**Madison Metropolitan Sewerage District (MMSD)** has a sanitary sewer main that requires no relocation. The relocated highway will cross over two sections of sewer main and place substantial loadings over a third section, requiring adjustments as follows:

1. Between Station 55+20 and Station 58+00, MMSD will raise the manhole at Station 55+30 approximately 9 feet, prior to construction. Make final adjustments in accordance to the bid item Adjusting Manhole Covers. Do not stockpile fill over the pipe above the proposed grades.
2. Between Station 70+10 and Station 73+10, cuts will reduce the amount of cover over the pipe and will require lowering of the manhole at Station 72+85 approximately 6 inches. MMSD will do this work prior to construction. Field-verify the location and depth of the pipe in this shallow section. Elsewhere in the special provisions, additional protection requirements of the pipe in this area are specified.
3. At Station 91+40, an area requiring excavation below subgrade, a maximum of 11 feet of fill will be located on the east side of existing USH 51. Perform any excavation required and replace all soil needed to provide support for construction activity near this pipe. Hand excavate immediately adjacent to the top of the force main at approximate elevation 850.0 feet.

### **UTILITY RELATED SPECIAL PROVISIONS**

Below are several special provisions that have been used on past projects and may be of interest to the designer. The designer should determine whether these specials are appropriate to a specific project, or whether they should be modified to fit the particulars of the project. We provide them here merely as

examples.

### **Utility Line Opening, Item SPV.0060.xx.**

#### **A Description**

This special provision describes excavating to uncover utilities for the purpose of determining the elevation of those utilities and to determine if potential conflicts with proposed utilities exist.

#### **B (Vacant)**

#### **C Construction**

Complete the Utility Line Opening (ULO) as shown on the plan or as directed by the engineer. Excavate in a manner such that the utility in question is not damaged, and the safety of the workers is not compromised.

Perform the ULO as soon as possible and at least 3 days in advance of proposed utility or street construction to allow all conflicts to be resolved with minimal interruption. Where utilities are within 6 feet of each other at a location, only one ULO shall be called for. In this case, a single ULO shall be considered full payment to locate multiple utilities.

Ensure that all utility line openings have been approved by, and coordinated with, the engineer.

#### **D Measurement**

The department will measure Utility Line Opening, completed in accordance with the contract and accepted, by the unit.

#### **E Payment**

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.xx	Utility Line Opening	Each

Payment is full compensation for performing all excavation required to expose the utility line; backfilling the excavation with existing material; compacting the backfill and restoring the site; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

### **Locate Sanitary Sewer, Item SPV.0105.xx.**

#### **A Description**

This special provision describes excavating to uncover and determine the exact location of the sanitary sewer crossing at Station XXX+XX, or as directed by the engineer.

#### **B (Vacant)**

#### **C Construction**

Perform the work in accordance to Wisconsin State Statute 182.0175 (Damage to Transmission Facilities), and in such a manner that the sanitary sewer is not damaged and the safety of the workers is not compromised.



**D Measurement**

The department will measure Locate Sanitary Sewer, completed in accordance with the contract and accepted, as a single complete unit of work.

**E Payment**

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.xx	Locate Sanitary Sewer	LS

Payment is full compensation for performing all excavation required to expose the sanitary sewer; backfilling the excavation with existing material; compacting the backfill and restoring the site; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

**Sanitary Manhole Reconstruct, Item SPV.0060.xx.**

**A Description**

This special provision describes removing the top concentric cone section of a manhole, and replacing it with an offset (eccentric) cone section in such a manner to place the casting in the terrace and out of the proposed curb and gutter, if possible. Perform this work in accordance to the pertinent requirements of section 611 of the standard specifications, as directed by the engineer, and as hereinafter provided.

**B (Vacant)**

**C Construction**

Perform this work in accordance to the pertinent requirements of section 611 of the standard specifications and the standard detail drawing "Manholes Type 1."

**D Measurement**

The department will measure Sanitary Manhole Reconstruct by the unit acceptably completed.

**E Payment**

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.xx	Sanitary Manhole Reconstruct	Each

Payment is full compensation for removing and replacing the top cone section of the manhole; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work. The department will pay for the casting separately under the bid item Salvaged Manhole Covers.

**Directional Boring:** Normally, the cost of exposing utility facilities for safety reasons during directional boring construction operations is borne by the contractor and is incidental to the bid item of directional boring. However, there may be times when the number of places (where exposure is necessary) is excessive, and in that case, a bid item may be included in the contract to pay for this work separately. This is in keeping with our normal policy of identifying and paying for items that are

often incidental to construction operations if the amount of anticipated work is excessive, or uncertain.

For directional boring when the amount of boring is relatively minor, add this wording to the special provisions:

In locations where the plans specify directional boring, and at locations where the contractor decides to perform directional boring, it is the contractor's responsibility to follow all safety measures, including properly exposing all gas lines when working under or over them, and working safely under high voltage electric lines. This does not exclude exposure of other sensitive utility installations.

For directional boring when there is an excessive number of locations that require exposure, use one of these special provisions:

### **Locate Existing Utility, Item SPV.0060.xx.**

#### **A Description**

This special provision describes locating existing utilities under paved surfaces, taking lateral and depth measurements that will be used for performing work for bid item Conduit, 3-Inch, Directional Bore and for bid item Multi-Cell Conduit, 4-Inch, Directional Bore, and restoring the pavement.

#### **B Materials**

Provide all base aggregate dense, asphaltic pavement, and concrete pavement, as required, to restore the site to its original condition. The materials provided shall be in accordance to the pertinent sections of the standard specifications.

#### **C Construction**

Remove pavement, alleys, or driveways, including all surfaces or other pavements superimposed thereon and base course or soil to the top of the utility being located. Core a nominal 6-inch diameter hole using conventional construction methods, or by using commercially available machinery that has been designed for this application.

Take lateral and depth measurements and provide the measurements to the engineer before performing directional boring.

Upon completion of the utility location, restore the roadway in the following manner. Install base aggregate dense from the bottom of the core exposed to the bottom of the pavement. Place concrete pavement and asphaltic surface to the dimensions as found in the existing roadway.

#### **D Measurement**

The department will measure Locate Existing Utility by the unit acceptably completed. One unit is one utility location.

#### **E Payment**

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.xx	Locate Existing Utility	Each

Payment is full compensation for sawcutting; removing pavement; performing all excavation; locating the utility; documenting utility lateral and depth information and providing it to the

engineer; furnishing and placing all soil, base aggregate dense, concrete, and asphaltic surface necessary to restore the site to its original condition; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

## **Expose Existing Utility, Item SPV.0060.xx.**

### **A Description**

This special provision describes exposing existing utilities under paved surfaces, taking lateral and depth measurements that will be used for performing work for bid item Conduit, 3-Inch, Directional Bore and for bid item Multi-Cell Conduit, 4-Inch, Directional Bore, and restoring the pavement. In addition to providing the required dimensions to the engineer, keep the utility exposed during the directional boring, allowing for visual assurance that all required utility clearances are being met.

### **B Materials**

Provide all base aggregate dense, asphaltic pavement, and concrete pavement, as required, to restore the site to its original condition. The materials provided shall be in accordance to the pertinent sections of the standard specifications.

### **C Construction**

Remove pavement, alleys, or driveways, including all surfaces or other pavements superimposed thereon and base course or soil to a minimum depth of 18-inches below the bottom of the utility being exposed.

When removing pavement, remove the pavement to an existing joint, or saw and chip to a true line with a face perpendicular to the surface of the existing pavement. Maintain drainage in accordance to subsection 205.3.3 of the standard specifications.

Take lateral and depth measurements and provide the measurements to the engineer before performing directional boring.

Keep the utility exposed and available for visual inspection until completing the directional bore. If the utility is exposed overnight or for prolonged periods of time, protect the utility from traffic by using steel plates suitable for carrying a vehicle or as directed by the engineer.

Upon completion of the utility location, restore the roadway in the following manner. Install base aggregate dense from the bottom of the core exposed to the bottom of the pavement. Place concrete pavement and asphaltic surface to the dimensions as found in the existing roadway.

### **D Measurement**

The department will measure Expose Existing Utility by the unit acceptably completed. Should multiple utilities be located within the same exposure area, the department will measure the occurrence as one unit.

### **E Payment**

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.xx	Expose Existing Utility	Each

Payment is full compensation for sawcutting; removing pavement; performing all excavation; locating the utility; documenting utility lateral and depth information and providing it to the engineer; furnishing and placing all soil, base aggregate dense, concrete, and asphaltic surface necessary to restore the site to its original condition; protecting the utility while it is exposed; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.